

Smad2 (phospho Ser465) Polyclonal Antibody

Catalog No: YP0840

Reactivity: Human; Mouse; Rat

Applications: WB;IHC;IF;ELISA

Target: Smad2

Fields: >>Cell cycle;>>Endocytosis;>>Cellular senescence;>>TGF-beta signaling

pathway;>>Apelin signaling pathway;>>Hippo signaling pathway;>>Signaling

pathways regulating pluripotency of stem cells;>>Th17 cell

differentiation;>>Relaxin signaling pathway;>>AGE-RAGE signaling pathway in diabetic complications;>>Chagas disease;>>Human T-cell leukemia virus 1 infection;>>Pathways in cancer;>>Proteoglycans in cancer;>>Colorectal cancer;>>Pancreatic cancer;>>Hepatocellular carcinoma;>>Gastric cancer;>>Inflammatory bowel disease;>>Diabetic cardiomyopathy

Gene Name: SMAD2

Protein Name: Mothers against decapentaplegic homolog 2

Q15796

Q62432

Human Gene Id: 4087

Human Swiss Prot

No:

Mouse Gene Id: 17126

Mouse Swiss Prot

No:

Rat Gene ld: 29357

Rat Swiss Prot No: 070436

Immunogen: Synthesized phospho-peptide around the phosphorylation site of human Smad2

(phospho Ser465)

Specificity: Phospho-Smad2 (S465) Polyclonal Antibody detects endogenous levels of

Smad2 protein only when phosphorylated at S465.



Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 52kD

Cell Pathway: Regulates Angiogenesis; Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;

Protein_Acetylation

Background: The protein encoded by this gene belongs to the SMAD, a family of proteins

similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signal of the transforming growth factor (TGF)-beta, and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors. The phosphorylation induces the dissociation of this protein with SARA and the association with the family member

SMAD4. The association with SMAD4 is important for the translocation

Function: disease:Defects in SMAD2 are found in sporadic cases of colorectal

carcinoma.,function:Transcriptional modulator activated by TGF-beta and activin type 1 receptor kinase. SMAD2 is a receptor-regulated SMAD (R-SMAD). May act as a tumor suppressor in colorectal carcinoma.,PTM:Acetylated on Lys-19 by coactivators in response to TGF-beta signaling, which increases transcriptional activity. Isoform short: Acetylation increases DNA binding activity in vitro and enhances its association with target promoters in vivo.,PTM:In response to TGF-

beta, ubiquitinated by NEDD4L; which promotes its

degradation.,PTM:Phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases. Able to interact with SMURF2 when phosphorylated on Ser-465/467, recruiting other proteins, such as SNON,

for degr

Subcellular Cytoplasm . Nucleus . Cytoplasmic and nuclear in the absence of TGF-beta. On

TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4



Location: (PubMed:9865696, PubMed:21145499). On dephosphorylation by phosphatase

PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm at the blastocyst and epiblast

stages (By similarity). .

Expression: Expressed at high levels in skeletal muscle, endothelial cells, heart and

placenta.

Tag: orthogonal

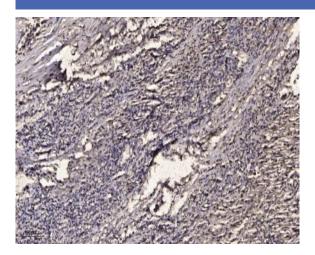
Sort : 16393

No4:

Host: Rabbit

Modifications: Phospho

Products Images



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).